**2.2 Basic differentiation rules**

**Find the derivative of each function**

1*. y = 6* 2. *y = 2x-3 3. y = 2x+3*

*3. g(x) = x2-2x+1 4. f(x) = x3+5x2+x 5. f(x) = x*

**Use the table as an aid to finding each derivative by the power rule.**

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| Original | Rewrite | Differentiate | Simplify/rewrite |
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**Find the slope of each at the given ordered pair.**

13*. y = 6x at (0,0)* 14. *y = 2x2-3 at (-2,5) 15. y = 21x+3 at (0,3)*

*16. g(x) = x2-2x+1 at (1,0) 17. f(x) = x3+5x2+x at x = 3 18. f(x) = x when x = 201*

**Find the equation of the tangent line for each function at the point.**

19. *g(x) = x2-2x+1 at (1,0) 20. f(x) = x3+5x2+x at x = 3*